# Index to Vol. XXIII.

## Editorials.


The position of shellac ..... 7
The federal license tax and the drug trade 7
Pennsylvania's candidate for attorney general ..... 7
Cornering the Standard ..... 7
Our foreign trade for ten months ..... 8
The work of revising the tariff ..... 67
Nitrate of soda statistics ..... 67
The Standard's profits ..... 67
The effect of changes of temperature on the cold test of oils ..... 67
Still more Standard bulldozing ..... 68
The oil men's bank ..... 68
Varnishes and the Tariff ..... 71
Fresh arrivals of Belgium glassblowers at Baltimore ..... 71
The oil producing territory ..... 71
The aim of instruction in technical chemistry ..... 72
The menhaden industry ..... 127
Aniline colors & material, Proposed duties 127
Another Standard scheme ..... 127
Prices for Paris green ..... 127
Standard philanthropy ..... 127
The U. S. menhaden oil and guano association ..... 130
Petitionining Congress for an examiner of oil transportation companies ..... 131
The attempt to capture the Tidewater ..... 187
Prospects of the lead corroders Movement 187
The Standard's bid for public favor ..... 187
Cartage and package charges ..... 187
Tariff revision ..... 188
The Standard's virtues ..... 188
Imports of dyewood extracts ..... 188
Fireproofing chemicals ..... 188
The credit system in the paint trade ..... 247
he failure of another Standard conspiracy ..... 247
The duty on bichromate of potash ..... 247
The suit against cream tartar works ..... 248
Tariff revision ..... 248
Poor cottonseed meal ..... 248
The Standard declines ..... 307
The trade in heavy chemicals ..... 307
American argols ..... 307
Fertilizing chemicals and materials ..... 307
Imports and exports for 11 months ..... 308
The Standard and the tidewater ..... 367
The National Starch Consolidation dissolved ..... 367
The Standard still on the decline ..... 367
The opium trade ..... 367
The Senate committee on corners ..... 367
Sulphuric acid and phosphate rock as aids to digestion ..... 367
Expert freighting ..... 367
Mr. Rockefeller's testimony ..... 427
Duty on quicksilver ..... 427
Cottonseed meal ..... 427
The Mexican Reciprocity Treaty ..... 428
Mr. Gowan on the Standard ..... 428
The Tidewater election case ..... 487
The position of Roman chamomile flowers 487
Oil meal ..... 487
Guilty mutes ..... 487
Tariff revision ..... 488
The Standard bribery case ..... 547
Decision in the cream of tartar case ..... 547
The tariff revision ..... 547
The Mexican treaty ..... 548
The tariff bill as passed ..... 548
Analisis of quinine pills ..... 548
The little game checkmated ..... 548
Committee on corners, Where is it ..... 548
The Standard's dilemma ..... 607
The new tariff ..... 607
Patterson and the Attorney General ..... 607
Tariff inquiries ..... 608
Patterson's "friend" and the Standard ..... 608
Rules governing trading in cottonseed ..... 608
Imports and exports for the year 1882 ..... 608
Against the Standard ..... 667
The position of gum arabic ..... 667
Expiring Standard contracts ..... 667
Probably indicted ..... 668
The "R. B. Mason" game ..... 668
"One by one the roses fall" ..... 727
The position of sumac ..... 727
Rulings under the new tariff ..... 727
The money market and trade ..... 728
The glass trade ..... 728
Imports and exports ..... 728
The free pipe bill in Pennsylvania ..... 789
What constitutes prime cottonseed meal ..... 789
Our imports of heavy chemicals ..... 789
The imports and movement of dyestuffs ..... 790
Refining and bleaching paraffine wax ..... 790
Divisions in the drug business ..... 790
A wail from Wilmington ..... 790
New antipyretics ..... 790
The consolidated Reporter ..... 861
Viscosity of lubricating oils ..... 861
Orange mineral as affected by the new tariff ..... 861
Short production of cod liver oil ..... 862
Mustard mixtures ..... 862
Foreign adulteration of American products ..... 862
Our trade with Columbia ..... 862
Carbonate of potash ..... 863
The position of canary seed ..... 933
The glue market ..... 933
Refined petroleum ..... 933
Rosin oil ..... 933
British exports to the United States ..... 934
The free pipe bill ..... 934
The jig is up ..... 935
The increasing consumption of cottonseed oil ..... 1005
The adulteration of drugs ..... 1005
Analyses of quinine pills ..... 1005
Lard oil for light-house use ..... 1006
Imports and exports ..... 1006
Under test burning oils ..... 1006
The advance in flaxseed ..... 1077
The white lead market ..... 1077
Glass manufacture in Europe and the United States ..... 1077
Extravagant profits in petroleum ..... 1078
The importation of Paris white ..... 1078
Rough handling of freight ..... 1078
Goods remaining in warehouse ..... 1078
How adulteration is punished in Germany 1078
The position of alcohol ..... 1078
The importation of dextrine ..... 1149
Speculation in petroleum certificates ..... 1149
The position of spices ..... 1149
Exports of petroleum ..... 1150
The flaxseed situation ..... 1150
Lower duties and prices on Paris white ..... 1150
The condition of trade ..... 1221
Dangers from oil fires ..... 1221
Shellac ..... 1221
The brimstone market ..... 1221
Cassia and cinnamon ..... 1222
Insect flowers and powder ..... 1222
Brooklyn bridge paint ..... 1293
Southern oil markets ..... 1293
Adulterated lard oil ..... 1293
The market for Ceylon cocoanut oil ..... 1294
Senator Emery's Castor speech ..... 1294
Our trade with Zanzibar ..... 1294
Change of our trade with Belgium ..... 1294
Imports and exports for nine months ..... 1294
The crude petroleum market ..... 1365
The menhaden fishery ..... 1365
The duty on boracic acid ..... 1366
The position of pepper ..... 1366
Carbolic acid ..... 1366
The "Anti-Standard" organization in Baltimore ..... 1366
Cottonseed products ..... 1437
The duty on anilines ..... 1437
The purity of cheap white lead ..... 1438
The convention of fertilizer manufacturers ..... 1438
Cod liver oil ..... 1438
Passage of the free pipe bill ..... 1438
The advance in quinine ..... 1509
Prime cottonseed oil ..... 1509
Turkey opium ..... 1509
A relic of the Consolidated Lead Co ..... 1509
Commercial travelers ..... 1510
The position of quinine ..... 1581
Menhaden fishery ..... 1581
The hop trade ..... 1582
The brimstone outlook ..... 1582
The new tariff ..... 1653
Naval stores ..... 1653
Petroleum speculation ..... 1653
Asafœtida ..... 1653
Imports and exports for ten months ..... 1654


## A


Aniline and the tariff ..... 35
Analysis of soaps ..... 43, 403, 524
Adulteration, The spread of ..... 56
Alcohol, The position of ..... 116
Aniline colors and material, Proposed duties 127
Albumen, Substitute for ..... 172
Analysis of glucose ..... 191
Amorphous paraffine ..... 192
American musk ..... 192
Aniline dyes, Poisonous ..... 208
Advantages of the rebate plan, The ..... 218
Adulteration of drugs, The ..... 231
Ammonia, Sulphur of ..... 231
Adulteration of cream of tartar ..... 351
American argols ..... 307
Annual review of the drug market—Opium. 313
Adulteration of aniline colors ..... 335
Antiseptics, The disinfecting power of ..... 372
Aluminium sulphate free from iron and from bauxite, Preparation of ..... 398
Ancient glass makers ..... 433
Austrian glass manufactures, The ..... 441
Alizarine monopoly, Attempt to prolong the. 455
Annual review of the drug market ..... 470
Acetates ..... 473, 532, 638, 672, 730, 866, 1011
Adulteration of white lead ..... 490
Analysis of petroleum coke ..... 491
Analysis of quinine pills, The ..... 531, 548
Apothecaries' scales ..... 611
Adulteration of lard ..... 628
Aluminous cake, Manufacture of ..... 642
Alkaloids, The chemical separation of two ..... 670, 731, 795
Alumina of commerce, Valuation of sulphate of ..... 670
Aniline and alizarine colors from petroleum 730
Ammoniacal liquor as a fertilizer ..... 866
Asphaltum, Mexican ..... 866
Army medical supplies, Bids for ..... 899
Axle grease, Manufacture of ..... 937
Alkali ..... 975
Ammonia, Blast furnace gases as a source of ..... 1011
A progressive manufacturing house ..... 1044
Ammonia by distillation, Determination of. 1047
Adulteration is punished in Germany, How. 1078
Alcohol, The position of ..... 1078
Alum, Note on dried ..... 1082
Alkalies, Improvements in the preparation of ..... 1082
Arsenic in articles of common household use, Determination of ..... 1113
Acetic acid, On the manufacture of ..... 1184
Axle grease, Distillation of rosin and manufacture of ..... 1225
Adulterated lard oil ..... 1293
Assignment, Jesse Oakley & Co.'s ..... 1297
Ammonia, Sulphate of ..... 1298
American vs. Russian petroleum ..... 1328
Action of acids and alkalies on glass ..... 1370
Antimony, The extraction of ..... 1371
Alkaloids, Bromine in testing for ..... 1381
Alizarine industry, The ..... 1400
Anilines, The duty on ..... 1437
Anthracene from petroleum residue ..... 1480
Advance in quinine, The ..... 1509
American glass ..... 1525
Addie's process for recovering ammonia from furnace gases ..... 1551
American exhibitors of oils, &c., at the Fisheries' Exhibition ..... 1585
Asafœtida ..... 1653
Adulteration of beech tar creosote ..... 1658
A model concern ..... 1658
Apparatus for extracting logwood ..... 1669
American petroleum abroad ..... 1684
Antiseptic alkaloids contained in creosote oils ..... 1692
Alkaloid in Cannabis Indica, The new ..... 1693
Alkalies, Process of manufacturing caustic. 1708


## B.


Behavior of castor oil with mineral oil ..... 95
Boston in the Standard's clutches ..... 173
Baking powders ..... 191
Bone fat, Saponifying ..... 223
Belladonna roots, Starch contents of ..... 275
Brimstone from Sicily, Exports of ..... 312
Borax trade, Review of the ..... 312
Bauxite, Preparation of aluminium sulphate free from iron and from ..... 398
Brazilian patent law, The new ..... 455
Bottle-nosed whale oil ..... 531
Beeswax, Testing ..... 575
Baking powder analysis ..... 668
Borax on the Pacific coast ..... 866
Bronze powder and bronzing ..... 939
Buffalo Lubricating Oil Works, Suit of the, against the Vacuum Oil Co ..... 1009
Blast furnace gases as a source of ammonia. 1011
Brimstone market, The ..... 1221
Bleaching powder, Economy in the manufacture of ..... 1256
Brooklyn Bridge paint ..... 1293
Belgium, Change in our trade with ..... 1294
Boracic acid, The duty on ..... 1366
Bromine in testing for alkaloids ..... 1381
Bids for supplies for the Government printing office ..... 1441
Blistering of paint, The ..... 1444
Bogus hellebore powder ..... 1512
Brimstone outlook, The ..... 1582
Bids to supply printing material ..... 1585
British tariff on oils ..... 1586
Blue pigment used in printing ..... 1587


## C.


Cottonseed and its products, The uses of ..... 52
Congress for an examiner of oil transportation companies, Petitioning ..... 131
Cream of tartar, Impure ..... 131
Corroders meeting, The white lead ..... 131
Chemicals, Fireproofing ..... 188
Cottonseed oil in the manufacture of soap, The use of ..... 223
Cream tartar works, The suit against ..... 248
Cottonseed meal, Poor ..... 248
Cream of tartar, Adulteration of ..... 251
Clerk, An embezzling ..... 278
Cotton cake ..... 311
Cassia lignea ..... 312
Cottonseed meal, Fine ground ..... 332
Chemistry, The aim of instruction in technical ..... 372
Cumarin, heliotropin and vanillin ..... 413
Coating pills with gelatine ..... 413
Corners, The report on futures and ..... 452
Chemical market, Philadelphia ..... 462
Chlorate of potassium, The manufacture of. 464
Catechu, Ulmine ..... 472
Condition and prospects of the soda industry, The present ..... 472
Chamomile flowers, The position of ..... 487
Cream of tartar, Purity and estimation of calcine salts ..... 490
Coke, Analysis of petroleum ..... 491
Chemical trade of Lancashire ..... 491
Combustion, Linseed oil and spontaneous ..... 491
Chemistry of hops, The ..... 491
Confidence game, A nice little ..... 518
Canada phosphates ..... 522
Cream of tartar, Grocery ..... 531
Caustic soda and potash, New process for manufacture of ..... 531
Cream of tartar case, Decision of the ..... 547
Checkmated, The little game ..... 548
Committee on corners, Where is it ..... 548
Coal oil in chunks ..... 551
Census, Petroleum's first ..... 568
Carbolic acid, Determination of ..... 575
Commercial valuation of lemon juice ..... 575
Chloroform in cases of poisoning, Detection of ..... 574
Citric acid, Examination of ..... 575
Castor oil in vacuo, Solid residue from the distillation of ..... 578 635
Cottonseed product trade, Rules for the ..... 611
Cream of tartar works, The ..... 638
Chemistry, The growth of ..... 713
Canadian oil market ..... 713
Cleveland refineries ..... 729
Caustic soda manufacture ..... 731
Cracked glass ..... 731
Caustic soda and caustic potash, The use of. 774
Ceylon exports ..... 794
Caffeic acid from cupreа bark ..... 795
Chrome oil separator ..... 795
Copper as a disinfectant ..... 796
Carbon disulphide, Purifying ..... 804
Canadian oil report ..... 884
Colombian tariff, The ..... 913
Coal tar, The distillation of ..... 938
Cork oak tree in New Zealand, The ..... 939
Cottonseed oil, The increasing consumption of ..... 1005
Chalk—Its composition and uses ..... 1082
Copaiba, Testing balsam of ..... 1112
Celluloid ..... 1112
Coal tar colors ..... 1203 1275
Chemical trade of the Tees, The ..... 1204
Cinchona tree, Enemies of the ..... 1204
Cassia and cinnamon ..... 1222
Certificates, Dealing in petroleum ..... 1224
Cylinder lubrication ..... 1225
Coloring wax candles ..... 1225
Colors used in lithography, Some ..... 1226
Communipaw, A big blaze at ..... 1226
Chloronitrited Camphor, On ..... 1227
Caustic soda, Preservation of ..... 1227
Coloring toilet soaps ..... 1280
Ceylon cocoanut oil, The market for ..... 1294
Cottonseed crushers, Preliminary meeting of the ..... 1297
Cinchona bark grown in Jamaica, Results of the analysis of ..... 1328
Colors used in lithographing, Red ..... 1346
Carbolic acid ..... 1366
"Cresolene" ..... 1368
Cottonseed as a manure, The value of ..... 1369
Coloring matter, New ..... 1370
Camphor in Japan, The manufacture of ..... 1371
Carbolic acid, The evaporation of ..... 1371
Coal tar colors, New ..... 1418—1490
Cottonseed products ..... 1437
Cod liver oil ..... 1438
Cottonseed crushers' Association, Meeting of the ..... 1440
Cottonseed rules adopted at New Orleans. 1440
Chemical trade, A retrospect of the ..... 1441
Customs tariff, Foreign ..... 1441
Cotton oil for soap ..... 1443
Clearing houses, Petroleum ..... 1472
Cuprea bark ..... 1480
Cottonseed oil, Prime ..... 1509
Consolidated Lead Co., A relic of the ..... 1509
Commercial travelers ..... 1510
Credits, Petroleum ..... 1513
Canadian oil market, The ..... 1515
Colors for glass and porcelain, Brilliant ..... 1515
Car axle journals, Lubrication of ..... 1544
Coloring material, Ghechea as a ..... 1544
Candle industry, The ..... 1545
Coal distillation, Products of ..... 1568
Cleveland Oil Exchange, Opening of the ..... 1584
Chicago Exposition, The ..... 1585
Cod fishery, The Newfoundland ..... 1585
Cinchona culture in Guatemala ..... 1586
Cinnamon, the quarterly sales of ..... 1586
Cinchona bark, prices of ..... 1586
Cottonseed and lard oil ..... 1615
Ceylon cinchona ..... 1623
Cloves in the Straits settlements ..... 1623
Cottonseed oil, Impure ..... 1655
Choice of lubricating oils ..... 1656
Cottonseed for cattle ..... 1656
Creosote, Adulteration of beech tar ..... 1658
Cottonseed crushers' convention ..... 1676
Creosote oils, Antiseptic alkaloids contained in ..... 1692
Cannabis indica, New alkaloid in ..... 1693
Carbonate of potash in toilet soaps ..... 1708
Caustic Alkalies, Process of manufacturing. 1708


## D.


Drug trade, The federal license tax and the 7
Drugs and food, A standard for ..... 11
Disinfectants ..... 155
Dye market, Annual review of the ..... 171
Dyewood extracts, Imports of ..... 188
Drugs, The adulteration of ..... 231
Drug exchange, Philadelphia ..... 312
Drug farming ..... 312
Drug market, Annual review of the ..... 313
Dextrine, The proposed duty on ..... 335
Disinfecting power of antiseptics ..... 372
Duty on quinine bottles, The ..... 398
Drug market, Annual review of the ..... 470
Duty on acid phosphates and other fertilizing materials, The ..... 471
Drugs, Pulverization of ..... 472
Duty on salicylic acid ..... 518
Determination of carbolic acid ..... 575
Drug trade of New York for the year 1882, Review of the ..... 795
Drugs, The adulteration of ..... 1005
Druggists, Entertaining the wholesale ..... 1044
Dynamite, What is ..... 1112
Dextrine, The importation of ..... 1149
Drugs, Japan imports of ..... 1480
Dyestuffs, Redwood and safflower as ..... 1526
Dyestuffs fixed upon textiles, New and easy method for testing ..... 1551-1534
Dyeing and printing in 1882 ..... 1562
Dyes, New ..... 1702


## E.


Examiner of oil, transportation Companies petitioning Congress for an ..... 131
Epsom Salts, Frosted with ..... 172
Embezzling clerk, An ..... 278
Exports of brimstone from Sicily ..... 312
Essential oil suit decided, An important ..... 431
Euphorbium gum ..... 464
Extracting coloring matters and juices from wood, New method of ..... 471
Election case, The Tidewater ..... 487
Estimation of potash in fertilizers ..... 490
Existance, How the great united lines sprang into ..... 551
Examination of citric acid ..... 575
Eschweig soap ..... 583
Evaporating the waste lye ..... 704
Exports of drugs and chemicals from London ..... 729

Exports and imports....1006
Entertaining the wholesale druggists....1044
Exports and imports for nine months....1294
Essences, A new method of extracting odors and....1401
Explosions in the production of ozone....1586
Exports and imports for ten months....1654
Exports of mineral lubricating oils....1656
Examination of fats....1707

F.

Federal license tax and the drug trade.... 7
Foreign trade 10 months, Our.... 8
Fields, How the Standard is using the new.. 11
Fats, In their saponification to the behavior of different.... 101
Fire-proof cement.... 116
Fire-proof paint.... 201
Flaxseed inspection.... 292
Flashing point of petroleum, On the determination of the.... 292
Fertilizing materials abroad.... 292
Fertilizing, Chemicals and materials.... 308
Free pipe bill, The.... 311
Fertilizing chemicals and the proposed tariff.... 311
Farming, Drug.... 312
Falsification of commercial peptones with gelatine.... 312
Fire and flood at Cleveland.... 332
Freighting, Export.... 368
Futures and corners, The report on.... 452
Fiavaniline, On.... 455
Floods, Quinine for sufferers by the.... 458
False glycerine.... 464
Fertilizing materials, The duty on acid phosphates and other.... 471
Fertilizers, Estimation of potash in.... 490
Fats and oils, The..643, 703, 774, 847, 919, 992, 1064, 1136, 1207, 1280, 1351, 1423, 1495, 1567, 1639, ....1707
Fat melting.... 668
Failure of a glass co.... 729
Failure of George Palen & Co.... 894
Fixed oils, The examination of.... 1040
Flaxseed, The advance in....1077
Freight, Rough handling of....1078
Flaxseed situation, The....1150
Fire-proof paint....1372
Fertilizer manufacturers, The convention of....1438
Fertilizer trade, Convention of the.... 1441
Fiskeries exhibition, American exhibitors of oils at....1585
Fuchsine....1658
Fats, Examination of....1707

G.

Glassblowers, Fresh arrivals at Baltimore of Belgian.... 71
Great oil land contest.... 103
Glass manufacturers' meeting, The.... 141
Glassmakers, The trouble among.... 171
Glass manufacture in Australia.... 171
Glucose suit, Progress in the.... 171
Glycerine, History of.... 171
Grease and mineral wax, Mineral.... 172
Gobbler, The great.... 174
Glucose, Analysis of.... 191
Glass, Stained.... 215
Glycerine from soap lyes.... 223
Glatin, Falsification of Commercial peptones with.... 312
Genuine violet soap.... 343
Glassmakers, Ancient.... 433
Glass manufacture, The Austrian.... 441
Green soap, Manufacture of.... 464
Glycrine soap, Transparent.... 464
Glycerine, False.... 464
Gum euphorbium.... 464
Guilty mutes.... 487
Glasss company in luck, A plate.... 491
Gum, Spruce.... 515
Game, A nice little confidence.... 518
Grocery cream of tartar.... 531
Game checkmated, The little.... 548
Gowan on Standard, Franklin B.... 550
Glassmaking in Australia.... 621
Guadeloupe vanilla.... 635
Glycerine, Evaporation of.... 796
Glucose works sold.... 828
Glue manufacturers, A hint to.... 867
Glycerine, from spent lyes, Recovering, 991, 1063
Galician petroleum....1039
Glass manufacture in Europe and the United States....1077
Glass, Effect of light on....1116
Gleanings from Gehe & Co's "Handelsbericht"....1152
Green glass, The manufacture of....1153
Gas fuel for glassmaking....1183
Gold glass....1184
Glucose interest, The....1226
Gold size far Glass....1236
Greenland seal fishery....1297
Gas vs kerosine....1348
Glycerine—Its preparation and use in the Arts....1328
Gas from oil, Apparatus for the manufacture of....1369
Glass, Action of acids and alkalies on....1370
Glass for post office at Paducah, Ky....1440
Gas monopoly vs the oil monopoly....1512
Glass industry in the Nethetlands, The....1515
Glass vessels, Protection for....1515
Glass and porcelain, Brilliant colors for....1515
Glass, American....1525
Ghe che as a coloring material....1544
Gas for glass making, Natural....1586
Grease or oil in lubrication....1657

H.

Heavy chemicals, The trade in.... 307
Heliotropin, Vanillin and cumarin.... 413
Hops, The chemistry of.... 491
Hatry & Son, J. A., The affairs of Messrs.... 828
Helios oil....1059
Hydrocyanic and other acids, Process for the recognition of....1332
Hellebore powder, Bogus....1512
Hop trade, The....1582

I.

Impure cream of tartar.... 131
Inspection, Flaxseed.... 292
Imports and exports for eleven months.... 308
Illuminating oils, Report on.... 960
Imports and exports....1037
Indian supplies, The....1044
Insect flowers and powder....1222
Illuminating oils, Safety of....1225
Indigo sale, The great London April....1274
Imports and exports for nine months....1294
Important to subscribers....1437
Insect powder, Colored....1442
Incombustible paint....1587
India sulpho acids....1622
Imports and exports for ten months....1654

J.

Japan, Lacquer trees of....218, 278
Jewett White Lead Co., Removal of the....1224
Johnson's semi-centennial, Mr. Oliver....1297
Japan imports of drugs....1480
Japanese peppermint....1549

K.

Koumiss.... 796
Kerosene vs. gas....1328
Kelp, Chemical values of....1480

L.

Lakes of animal and vegetable origin 11, 72, 131, 192, 252, 313, 372, 432, 493, ....552
Laboratory, The United States.... 103
Lead corroders, movement, Prospects of the 178
Lubricating oils, Test for.... 192
Lacquer trees of Japan....218—278
Lead and oil manufacture in St. Louis.... 251
London petroleum wharves.... 311
Lignea, Cassia.... 312
Licorice root, Spanish.... 464
Lancashire, Chemical trade of.... 491
Linseed oil and spontaneous combustion.... 491
Legislation in Indiana Pharmaceutical.... 522
Lime Juice, Its properties and uses.... 551
Lemon juice, Commercial valuation of.... 575
Lubricating oils, Table of chemical, physical and practical properties of.... 652
Lubricants.... 735
Licorice farming.... 758
Lanoline.... 758
Linseed oil, Adulterated.... 764
Lampblack from natural gas wells.... 793
Lubrication, Injurious modes of.... 794
Linseed meal, Unchangeable.... 878
Louisiana State Pharmaceutical Association 937
Lard oil for light house use....1006
Licorice paste, On some commercial....1081
Lubrication, Some hints as to....1081
Lead corroders, An ideal combination of....1153
Lubrication....1153
Lead poisoning in England....1188
Lithography, Some colors used in....1226
Lead outlook, The....1227
Lard oil, Adulterated....1293
Lithography, Red colors use in....1346
Lead market, The outlook in the....1480
Lubrication and lubricants....1480
Lubrication of car axle journals, The....1544
Lead production of Germany in 1882....1587
Lard and cottonseed oil....1615
Lubricating oils, choice of....1656
Lubricating oils, Minerals....1656
Lubrication, Oil or grease in....1657
Lard, grease and vegetable oil....1669
Logwood, Apparatus for extracting....1669

M

Manufacture of soap, The, 42, 102, 162, 222, 282, 342, 402, 463, 523, 643, 703, 763, 919, 991, 1063, 1135, 1207, 1279, 1351....1495
Menhaden fisheries, The steam.... 92
Menhaden industry, The.... 127
Menhaden oil and guano ass., The U. S.... 130
Manufacturers meeting, The glass.... 141
Musk, American.... 192
Mineral grease and mineral wax.... 172
Marseilles soap.... 283
Meal, Cottonseed.... 427
Mexican Reciprocity Treaty, The.... 428
Monopoly, Attempt to prolong the alizarine 455
Manufacture of sal soda.... 471
Manufacturing sodium sulphide, A new method of.... 472
Method for quantitatively determining stearine and oliene in tallow.... 515
Manganese in the provinces.... 515
Mexican treaty, The.... 548
Milk sugar, Theory and practice in the manufacture of.... 581, 635
Materials for the manufacture of soap, The raw.... 583
Manufacture of mineral colors, The, 611, 672, 732, 793, 867, 939, 1012, 1084, 1154, 1228....1290
Mineral oils, Proposals for.... 822
Mexican asphaltum.... 866
Medical supplies, Bids for army.... 899
Magnesite.... 987
Menhaden company in court, A....1244
Mineral water duty case, The....1256
Matches, The tax on....1298
Menhaden fishery, The....1365
Menhaden, The supply of....1369
Medicinal plants of New Zealand, Native....1442
Monopoly in news, A....1515
Menhaden fishery....1581
Mineral lubricating oils....1656

N

New method of obtaining fine wood products 292
Note, Paying wages by.... 455
New process for the manufacture of caustic soda and potash.... 532
New soaps.... 532
New phosphorescent powder.... 532
New publications.... 792
Naphthaline for agricultural and therapeutical uses....1011
Naphtha wells in Turkestan....1011
Nitro glycerine, How to unmake....1082
New publications....1224
News, A monopoly in the....1515
Netherlands, The glass industry in the....1515
New York State Pharmaceutical Association 1585
Newfoundland cod fishery, The....1585
Naval stores....1653

O.

Opium assays.... 52
Oils, The effect of changes of temperature of the cold test of.... 67
Oil mens' bank.... 68
Oil producing territory, The.... 71
Oils, Behavior of castor oil with mineral.... 95
Oil land contest, Great.... 108
One too many for the Standard.... 116
Oils, Method of purifying.... 171
Oil and lead manufacture in St. Louis.... 251
Oil trade, The Russian.... 283
Ohio oil field, The.... 310
Opium trade, The.... 367
Oil in light houses, Mineral.... 370
Oil pulp or thickener.... 371
Oil, Croton.... 404
Oil, Saponification of cottonseed.... 411
Oil suit decided, An important essential.... 431
Oils and varnish, Spontaneous combustion of 433
Oil product, The.... 455
Oils, Preserving essential.... 464
Oils, The determination of the drying properties of linseed.... 470
Oil meal.... 487
Oil on troubled waters.... 491
Oil and spontaneous combustion, Linseed.... 491
Oil, Bottle nosed whale.... 531
Oil, Turkey red.... 551
Oil in chunks, Coal.... 551
Oils, To test machine.... 553
Oil "pulp" or "thickener".... 611
Oils and fats, The..643, 703, 774, 847, 919, 992, 1064, 1136, 1207, 1280, 1351, 1423, 1494, 1567, 1639, 1707.
On the action of certain metals on oils.... 670
On the chemistry and analytical examination of fixed oils....671, 773, 794
Oil boom in Canada.... 794
Oil matters at Baltimore.... 864
Oil well bill, The.... 894
Oil companies, Suit between.... 966
Oils, Undertest burning....1006
Oleic acid, The conversion of, into palmitic acid upon a manufacturing scale....1009
Ohio oil fields....1080
Oil, A new process of extracting....1112
Oil in boilers, The effect of....1172
Opium trade, The India....1183
Oil fires, Dangers from....1231
Our oil region report....1254
"Opening day" at an oil store....1256
Oil markets, Southern....1293
Oil, Adulterated lard....1293
Oakley & Co's, Jesse, assignment....1297
Oil fight in Baltimore, The....1297
Oils used in woolen mills....1369
Oil, Apparatus for the manufacture of gas from....1369
Ozokerite industry, The....1370
Odors and essences, A new method of extracting....1401
Oil press, A new....1460
Oil presses....1472
Oil wells of Baku....1472
Oders, perfumes and flavors....1479
Oil, Prime cottonseed....1509
Opium, Turkey....1509
Oil monopoly vs. the gas monopoly....1513
Oil in bulk, Transporting....1514
Oil market, The Canadian....1515
Oil well, Boring an....1544
Opening of the Cleveland Oil Exchange....1584
Olive oil, Examination of....1585
Ozone, Explosions in the production of....1586
Oils, British tariff on....1586
Oil, Lard and cottonseed....1615
Oils, Choice of lubricating....1656
Oil or grease in lubrication....1657
Outlines of the great oil field....1658

P.

Pennsylvania's candidate for Att'y Gen'l.... 7
Pyroligneous acid manufacture, The European.... 10—112
Progress of tariff revision.... 35
Pipe lines, European.... 81
Petroleum soap.... 103
Paris green, Prices for.... 127
Photographic paint for machinery.... 141
Petrolium fields, Russian.... 173
Package and cartage charges.... 187
Powders, Baking.... 191
Pipe companies' tanks, The.... 192
Paraffine, Amorphous.... 192
Paint, Fire proof.... 201
Poisonous aniline dyes.... 208
Paint trade, The credit system in the.... 247
Paints, Pure liquid.... 291
Pine wood products, A new method of obtaining.... 292
Petroleum in Russia.... 310
Petroleum, South American.... 311
Pipe bill, The free.... 311
Petroleum wharves, London.... 311
Philadelphia drug exchange.... 312
Peptones with gelatin, Falsification of commercial.... 312
Proposed duty on dextrine, The.... 335
Patent, That Roberts.... 370
Paint works, New metallic.... 379
Pompona, "Wild vanilla".... 395
Poisons, The invasion of.... 394
Potash and soda, Separation of magnesium in testing for.... 413
Pills with galatine, Coating.... 413
Paying wages by note.... 455
Patent law, the new Brazilian.... 455
Philadelphia chemical market.... 462
Potassium, The manufacture of chlorate of. 464
Preserving essential oils.... 464
Podoyhllum, Rosin of.... 471
Pulverization of drugs.... 472
Petroleum in 1882, and the outlook.... 489
Pig lead and the tariff.... 489
Purity and estimation of salts, Cream of tartar.... 490
Progress of work in the petroleum fields.... 490
Petroleum field, Progress of work in the.... 490
Potash in fertilizers, Estimation of.... 490
Petroleum coke, Analysis of.... 491
Plate glass company in luck, A.... 491
Provinces, Manganese in the.... 515
Phosphates, Canada.... 522
Pharmaceutical legislation in Indiana.... 522
Presence of soda in commercial potash.... 532
Patterson's testimony.... 549
Patterson received, What.... 551
Petroleum's first census.... 568
Patterson to be investigated—The Standard bribery charge.... 572
Poisoning, Detection of chloroform in cases of.... 575
Paint manufacture; Complementry.... 668
Petroleum production, Russian.... 668
Pharmacy, Factory products in.... 670
Poppy cultivation in Persia.... 704
Purifying copra oil.... 704
Proposals for mineral oils.... 748
Petroleum in American packages, Russian.... 793
Petroleum statistics again.... 794
Petroleum exchanges, Consolidation of.... 822
Paraffine scale, English method of refining, 731, 865, 937
Paint to prevent the penetration of damp.... 878
Petroleum as a fuel.... 966
Petroleum exchange election, National.... 966
Pitch lake of Trinidad.... 966
Petroleum developments in Mexico....1040
Perfuming soaps....1063
Profits in Petroleum, Extravagant....1078
Paris white, The importation of....1078
Pipe line, The Baltimore....1081
Phosphates in New Hanover....1115
Petroleum certificates, Speculation in....1149
Petroleum, Exports of....1149
Paris white, Lower duties and prices on....1150
Proprietary stamps, Redemption of....1152
Petroleum exchange election....1183
Petroleum imports, The Turkish scheme to burden....1183
Petroleum certificates, Dealing in....1224
Phosphate, West Indian....1226
Paint, Brooklyn bridge....1293
Petroleum, Russian vs. American....1328
Petroleum market, The crude....1365
Pepper, the position of....1366
Perfumery in the South....1368
Paint, Fireproof....1370
Passage of the free pipe bill....1438
Poppy cultivation in Macedonia....1442
Paint, The blistering of....1444
Petroleum statistics, Monthly....1472
Petroleum, Exports of March, 1883....1472
Petroleum clearing houses....1472
Perfumes, flavors and odors....1479
Prime cottonseed oil....1509
Petroleum credits....1513
Petroleum, Russian....1514
Petroleum and its products....1514
Pigments used in printing, Red....1514
Peppermint, Japanese....1549
Phosphoric acid in the super-phosphates....1549
Printing and dyeing in 1882....1562
Products of coal distillation....1568
Produce exchange committe, The....1585
Printing material, Bids to supply....1585
Petroleum as a solid....1586
Paint best protects iron? What....1587
Pigments used in printing, Blue....1587
Paint, Incombustible....1587
Perfumery, Salicylic acid in....1640
Petroleum speculation....1653
Petroleum in Turkey....1656
Petroleum abroad, American....1681
Potash in toilet soaps, Carbonate of....1708
Pumice stone....1708

Q

Quinine taxed and free, Comparative prices of.... 252
Quinine pill discussion.... 275
Quicksilver statistics.... 291
Quinine bottles, The duty on.... 398
Quicksilver, Duty on.... 427
Quinine for sufferers by the floods.... 458
Quinine pills, The analysis of....531, 549 1005
Quinine, The auction sale of....1188
Quicksilver trade....1298
Quinine sulphate, The ether test for....1372
Quinine, The advance in....1509
Quinine, The position of....1581

R

Rosin curd soap.... 162
Russian petroleum fields.... 172
Revision, Tariff....188, 248, 307
Rebate plan, The advantages of the.... 218
Russien oil trade, The.... 283
Russia, Petroleum in.... 310
Review of the borax trade.... 312
Roberts patent, That.... 370
Revising the tariff.... 441
Rosin and turpentine.... 455
Resin of podoyhllum.... 471
Roman chamomile flowers, The position of. 487
Relief fund, Subscriptions to the.... 518
Refining shellac.... 518
Reactions for the recognition of the resorcine colors.... 755
Rosin oil.... 933
Rebate plan to retailers, Extending the....1080
Refining interests, Oil City....1080
Removal of the Jewett White Lead Works.1224
Rosin, Distillation of, and manufacture of axle grease....1225
Rebater, Another....1227
Rose oil, or otto of roses....1257
Russian vs. American petroleum....1328
Rebate plan in the East, The....1476
Russian petroleum....1514
Red pigments used in printing....1514
Redwood and safflower as dyestuffs....1526

S.

Shellac, The position of.... 7
Standard, Cornering the.... 7
Standard suspects, Testimony of the....9, 70, 129, 190, 250, 309, 369, 429
Standard, How it is using the new fields.... 11
Soap, The manufacture of..42, 102, 162, 222, 282, 342, 402, 463, 523, 643, 703, 763, 919, 991, 1063, 1135, 1207, 1270, 1351....1495
Soap machinery, Toilet.... 43
Soap oils, Wool and.... 43
Soap, Analysis of.... 43, 403, 524
Summary of the cinchoha barks of commerce.... 55
Soda nitrate, Statistics of.... 67
Standard profits, The.... 67
Standard bulldozing, Still more.... 68
Suit ended, A long contested.... 95
Saponification of fats.... 103
Soap, Petroleum.... 103
Standard's tax debt, The.... 112
Standard, One too many for the.... 116
Standard scheme, Another.... 127
Standard Philantropy.... 127
Soap, Curd resin.... 162
Soap, The manufacture of tallow curd.... 163
Substitute for albumen.... 172
Salts, Frosted with epsom.... 172
Standard's method, The.... 172
Standard in Boston, The.... 173
Standard's clutches, Boston in the.... 173
Standard's bid for public favor, The.... 187
Standard virtues, The.... 188
Standard's greatness, Two versions of the.... 213
Stained glass.... 215
Soap lyes, Glycerine from.... 223
Saponifying bone fat.... 223
Sulphur of ammonia.... 231
Standard conspiracy, The failure of another 247
Standard's last attempt to gobble the Tidewater criminal, Is the.... 249
Standard's attempt to steal the Tidewater.. 249
Starch contents of belladonna roots.... 275
Soap, Marseilles.... 283
Statistics, Quicksilver.... 291
Standard declines, The.... 307
South American petroleum.... 311
Soda in Wyoming.... 338
Soap, German violet.... 343
Soap, Transparent resin.... 343
Standard and the Tidewater, The.... 368
Starch consolidation dissolved, The national 367
Standard still on the decline, The.... 367
Senate committee on corners, The.... 367
Sulphuric acid and phosphate as aids to digestion.... 367
Standard, Mr. Boyd's idea of the.... 371
Standard again checkmated, The.... 372
Swindlers, Check stamps.... 379
Salt deposits, Valuable.... 395
Soap of 400 lbs, yield with natural marble, Cocoa.... 413
Soda, Separation of magnesium in testing for potash and.... 413
Standard, Mr. Gowan on the.... 428
Spontaneous combustion of oils and varnish 433
Standard conspiracy case, The.... 452
Soap, Manufacture of green.... 464
Soap, Transparent glycerine.... 464
Soap, Yellow close.... 464
Spanish licorice root.... 464
Sal soda, The manufacture of.... 471
Sodium sulphide, A new method of manufacturing.... 492
Soda industry, The present condition and prospects of the.... 472
Standard and tin, The.... 490
Spontaneous combustion, Linseed oil and. 491
Stearine and olein in tallow, Method for quantitatively determining the.... 515
Spruce gum.... 515
Subscriptions to the relief fund.... 518
Shellac, Refining.... 518
Salicylic acid.... 518
Sulpho-cyanides, Uses of the.... 532
Soaps, New.... 532
Soda in commercial potash, Presence of.... 532
Standard bribery case, The.... 547
Standard, Franklin Gowan on the.... 550
Shellac varnish again.... 561
Standard bribery charge, Patterson to be investigated.... 572
Solid residue from the distillation of castor oil in vacuo.... 578
Soap, The raw materials for the manufacture of.... 583
Soap, Eschweg.... 583
Soap factories, Insuring.... 609
Shellac varnish, Concerning.... 638
Soap, Remelting toilet.... 643
Soap White curd.... 643
Sago and tapioca.... 698
Senega root, False.... 704
Seaboard bank and oil collaterals, The.... 729
Shellac varnish, The duties on.... 730
Sulphur in Italy....
Scale, The English methods of refining—731, 865.... 9
Saponification in the cold way.... 7

Soap, Prime white curd ..... 763
Soaps, Defective Eschweg—763 ..... 847
Soap. The use of the curd for pale ..... 764
Shoe blacking ..... 793
Standard capture, Not a ..... 864
Standard contracts, Expiring ..... 864
Standard Oil Company, The ..... 865
Sulphurous acid in bleaching ..... 914
Sponge fisheries, The Bahama ..... 937
Sulphuric acid, The manufacture of—938, 1010 ..... 1298
Shellac, Bleaching ..... 950
Sulphur deposit, A Russian ..... 1009
Sodic chloride and potass ..... 1009
Sugar of lead, Curious litigation over ..... 1009
Sponge fishery, The Bahama ..... 1010
Soaps, Perfuming ..... 1063
Salt tax, A ..... 1083
Soda industry, Recent progress in the ..... 1083
Soudan, The ..... 1131
Soap, Quackery in ..... 1135
Spices, The position of ..... 1149
Seal fishery, The ..... 1152
Stamps, Redemption of proprietary ..... 1152
Shellac ..... 1221
Swindle, A neat ..... 1224
Sulphuric acid, Comparative merits of brimstone and pyrites for the manfacture of ..... 1226
Soda, Reservation of caustic ..... 1227
Soaps of the ancients, The ..... 1256
Soap varnishes ..... 1280
Soaps, Coloring toilet ..... 1280
Southern oil markets ..... 1293
Senator Emery's Lancaster speech ..... 1294
Scotch oil trade ..... 1297
Sulphate of ammonia ..... 1297
Sulphuric acid chambers, The working of ..... 1299
Soda ash manufacture, The carbonating or finishing process of ..... 1299, 1372, 1443
Sludge acid, A use for ..... 1335
Salt deposits discovered, New ..... 1352
Standard organization in Baltimore, The anti ..... 1366
Standard oil contracts expiring ..... 1368
Spruce gum trade, The ..... 1370
Selenium in commercial sulphuric acids ..... 1370
Sulphuric acid chambers, The working of ..... 1371
Subscribers, Important to ..... 1437
Sulphur in California ..... 1480
Safflower and redwood as dyestuffs ..... 1526
Superphosphates, Phosphoric acid in the ..... 1549
Salicylic acid in perfumery ..... 1640
Shaving soap ..... 1640
Soaps, Carbonate of potash in toilet ..... 1708

## T.

Tariff, Anilines and the ..... 35
Tariff revision, Progress of the ..... 35
Toilet soap machinery ..... 43
Tariff, The work of revising the ..... 67
Tariff and the varnishes ..... 71
Tar products from coke ovens with coke of the best quality ..... 116
Tidewater, The attempt to capture the ..... 187
Test for lubricating oils ..... 192
Two versions of the Standard's greatness ..... 213
Tidewater criminal, Is the Standard's last attempt to gobble the ..... 249
Tariff revision ..... 307
Testimony of the Standard suspects, 9, 70, ..... 129, 180, 250, 309
Tariff, Fertilizing chemicals and the proposed ..... 311
Tariff revision ..... 188 395, 488, 547
Tidewater, The Standard and the ..... 367
Tariff on Pyrites, The ..... 411
Testimony, Mr. Rockefeller's ..... 427
Tariff, Revising the ..... 441
Turpentine and rosin ..... 455
Transparent glycerine soap ..... 464
Tidewater election case, The ..... 487, 489
Tariff, Pig lead and the ..... 489
Tin, The Standard and ..... 490
Tallow, Method for quantitatively determining the stearine and oleine in ..... 515
Treaty, The Mexican ..... 548
Tariff bill as passed ..... 548
Testimony, Patterson's ..... 549
Turkey red oil ..... 551
To test machine oils ..... 553
Testing beeswax ..... 575
Theory and practice in the manufacturing of milk sugar ..... 582
The tariff, What the trade think of ..... 610
Tidewater, Victory for the ..... 669
Tariff, The new Canadian ..... 792
Torpedo case, Decision in the Roberts ..... 794
Tidewater Pipe Line election ..... 864
Tallow, Disappearance of ..... 867
Tartaric acid, Manufacture of ..... 1083
Turkish scheme to burden petroleum imports ..... 1183
Trade, The condition of ..... 1221
Toilet soaps, Coloring ..... 1280
Trade with Zanzibar, Our ..... 1294
Trade with Belgium, Change in our ..... 1294
Tincal ..... 698
Turpentine ..... 1443
Turkey opium ..... 1509
Travelers, Commercial ..... 1516
Transporting oil in bulk ..... 1514
Trade with Turkey, American ..... 1586
Tariff on oils, British ..... 1586
Tariff, The new ..... 1653
Turkey, Petroleum in ..... 1656
Toilet soap, Carbonate of potash in ..... 1708

## U

Ulmine catechu ..... 472
Uses of the sulphocyanides ..... 532
United lines sprang into existance, How the great ..... 551
Undertest oils. Convicted of selling ..... 1039
Ultramarine, The chemistry of ..... 1335

## V

Vegetable or animal origin, Lakes of, 11, 72, 31, 192, 252, 313, 372, 432, 492 ..... 552
Varnishes and the tariff ..... 71
Violet soap, Genuine ..... 343
Vanilin, cumarin and heliotropin ..... 413
Varnish, Spontaneous combustion of oils and ..... 433
Varnish again, Shellac ..... 561
Varnish in London, Early manufacture of ..... 864
Vanilla in Mexico, Cultivation of ..... 1111
Varnishes, Soap ..... 1280
Venice turpentine, American and foreign ..... 1441
Vegetable oil and lard grease ..... 1669

## W

Wool and soap oils ..... 43
White lead corroders meeting, The ..... 131
Wax, Mineral grease and mineral ..... 172
Wood, Its cultivation and use ..... 471
White lead, Adulteration of ..... 490
Waters, Oil on troubled ..... 491
Whale oil, Bottle nosed ..... 531
Why so bearish? ..... 966
White lead market, The ..... 1077
Warehouse, Goods remaining in ..... 1078
White lead, The purity of cheap ..... 1438

## Y

Yellow close soap ..... 464

## Z

Zanzibar, Our trade with ..... 1294

## Correspondence.

Suggestions to the white lead trade ..... 9
Non-secret medicines ..... 68
Duty on anilines ..... 69
The decline in quinine ..... 249
For cottonseed meal ..... 428
Insuring soap factories ..... 609
Fat melting; Baking powder analysis; Paint manufacture; Complimentary; Russian petroleum production ..... 668
Superior cottonseed oil ..... 792
Efflorescence in soap ..... 792
Solubilities tables ..... 935
Winter lubricating oils ..... 935
Testing the percentage of oil remaining in oil cake ..... 935
Wellsburgh, West Va., not Penn ..... 1008
Safety of illuminating oils ..... 1079
The empty capsule suit ..... 1151
Stearate of copper; Complaint against cottonseed oil shipments; Drying out soap powders; Dyeing with anilines ..... 1307
Impure crude cottonseed oil; Petroleum exchange clearing houses ..... 1511
Impure cottonseed oil ..... 1655

## Customs Decisions.

Oaths to consular invoices; Allowance for damaged goods injured within limits of port; Duty on glass ware; Silvered plate glass ..... 129
Phosphozone dutiable as mineral water; Aniline dyes and colors; Duty on diamond pointed pencils ..... 536
Duty on medicinal preparations; Duty on extract of myrabolans; Duty on bronze powder; Duty on xylidine; Duty on pressed glass; Duty on tamarinds; Duty on unpolished glass ..... 596
Duty on "rose dry color"; Duty on dandelion root; Duty on azo benzole dye colors; Duties on lemon, orange and bergamot oils ..... 716
Carriage of petroleum on sea going steam vessels; Goods withdrawn from warehouse for export ..... 1008
Crude musk in pod; Rate of duty on goods entered before the tariff act of 1883 takes effect; Aniline dyes and colors—jaune indiaen; Duty on alcoholic infusion; Allowance for drawback—glue sizing ..... 1296
Liability of alcohol bitters to tax ..... 1584

## Chemical & Scientific Notes

Artificial production of witherite strontianite and calcite; Laboratory explosions; Phosphorus in charcoal ..... 70
Arrobine and bassorine; The base of aniline; Paraffine and gutta percha for preserving wood; Test for soda carbonate; Action of certain chlorides on aniline colors; Pure hydrochloric acid; The adulteration of cochineal; Gold varnish for metals ..... 189
Determination of boracic acid ..... 249
Madagascar aloes; Spurious drugs in England; Fraudulent hops; Preparation of a permanent test solution; Glycerine and glue; The preparation of neutral tannate of quinine; Falsification of vanilla; Adulteration of cochineal; Liquor potassæ a solvent for gum resin; For detecting cottonseed oil in olive oil; Crystallization of glucose; Disinfectants; Volumetric determination of phosphoric acid; Adulteration of marsh mallow root; Adonidine; Bulgarian opium ..... 351
Uro roseine; Cottonseed oil in pharmacy; Aqueous solutions of salicylic acid; chlorine in oxygen gas prepared from chlorate of potassium; Alcoholic solution of sulphurous acid; On the determination of alkaloids as picrates; Diethylacetate and dimethylacetate as anæsthetics; Artificial oil of almonds; Oil of cinnamon leaves; Purified solution of tannin; Bromine as a disinfectant; Production of low temperature; On the action of ethalic anhydride upon gallic acid ..... 415
Rubber lubricator for belts; Preparation of tannate of quinine; The volatile oil of sandalwood; Copra; Preparation of red and violet colors; Purification of carbon bisulphide; Solubility of morphia salts in water; Process of an apparatus for obtaining chlorine and sodium; Bottle stopper; Method of extracting oleaginous matter from animal and vegetable substances ..... 475
Paint; Method of making soda lime; Ointment; Manufacture of a white pigment. 476
Zinc in making potash; Carbamide as a substitute for quinine; Bordeaux red; Delphinium agacis; Estimation of calcium sulphide in bone black; Improvements in the manufacture of gelatine and glue; New substitute for gypsum; Extraction of fatty matters from glue; Zinc on sulphur ..... 534
Restoration of ethereal oils; Santonine adulterated with stearic acid; Fresh syrup orange peel; To pulverize musk; Yellow nitr; Solubility of the salts of morphine and quinine; Opium in commerce; Naphthaline pomades; Sanitary topics; Quitenidine; Deodorization of iodoform; Oil of nux vomica ..... 595
Rosaniline in wine; Test for cottonseed oil in olive oil; Synthesis of carbon and hydrogen; Hydraulic lime; Time of reaction of the olfactory sensation; Organisms developed in carbolic acid; Tannate of cannabine; On invertine, the ferment of beer; Preparation of trichlor acetic ether; Poisoning power of metallic salts; On the inhalation of petroleum vapors; Electricity and the manufacture of aniline colors; Deodorizing musk; Cleaning of factory wast waters; Glycerine in fats; Varnish for labels; Extracting bone fat; Atropine; Aconitina; Hydric sulphide; Saltpeter from osmose water; Poudrette 654
Physiologic action of quinine on the circulatory system; Manufacture of aluminum acetate; The manufacture of azoxybenzol; Cinnamic acid; Producing vanilline; Mural painting composition; Magnesium chloride; Artificial indigo; The quinine alkaloids ..... 715
Preparation of ethers of trichloracetic acid; The coloring matters of madder; Allotropic arsenic; Researches on the aluminates; Extraction of the coloring matters of blue urine ..... 840
Varnish for foundry patterns and machinery; Oil, tar, and ammonia from human fæces ..... 841
Creatine and creatinine reaction ..... 912
Morphine hydrobromate; Testing petroleum jellies; Glycerine borate of calcium and sodium; The hydrocarbons of peat; The reddening of phenol; Peroxide of lead; Varnish; Manufacture of caustic alkalies, baryta and soda; Recovery of artificial alizarine; Why aniline black turns green; Pilocarpine; Protective coating of iron; Lacquer; Aluminium; Substitute for gold bronze; Air proof cement ..... 913
Test for ammonia; Production of certain crystalline stannates; Mechanism of the "setting" of gypsum; Preservation of ferrous sulphate; Determination of melting points; Evolution of sulphuretted hydrogen gas; Preparation of hydrobromic acid and its use in analyses; New weights and measures in Turkey; Conversion of alizarine blue into a soluble state; Peroxide of lead; Muslin glass; The sale of patent medicines; Cocoanut oil; Copper paint; Gelatine in varnish; On the recognition and estimation of titanium ..... 1008
The red color in carbolic acid; To remove chromic stains; Luting for conduct pipes; Carbon bisulphide; Determination of gum in licorice juice; Mono-nitro-resorcin; Reactions for the detection of naphthol, chloroform and iodoform; Recognition of tertiary alcohols; Detection of fusel in commercial alcohol; The extirpation of useful plants; The adulteration of otto of roses; Colored essential oils; The stinking tree of Greece ..... 1080
Researches on the crystalline phosphates; Formation heat of the glycolates; Effects of the respiration of air charged with vapors of petroleum; Note on the assay of quinine sulphate ..... 1151
Poisonous properties of the morel; Sesquicarbonate of potassium; Detection of morphine in quinine; Assay of nux vomica; Formic and acetic acid in plants ..... 1152
Singular effect of corrosive sublimate ..... 1223
Adulterated saffron; Preparation of carbonated sodium and potassium aluminates; The manufacture of the sulpho-cyanides; Assay of linseed oil; Precipitation of ferric and alumnium phosphate along with calcium sulphate; Use of finely divided leaf for the examination of drying oils; A dark blue marking ink; Molecular constitution of glass ..... 1224
Method for preparing brown dyes; A new lacquer; A new moxa; On carbonic acid; Shaving soap; A compound of phosphoric acid and of silica; New invisible ink; Formation of arsenides by pressure; Methyl chloride to extract the perfume of flowers; Incombustible paint ..... 1297
Toughened glass; Air proof cement; new and remarkable chemical experiments; Hydraulic silica; Boiling point of the æthane and ethylene and haloid compounds; Derivatives of acetylene; Action of sulphur upon the alkaline phosphates; Products of the distillation of colophony; Chlorination of hydrocarbons from Caucassian petroleum; Specific gravity of paraffine wax; Baku naphtha ..... 1368
Extraction of the poisonous principle contained in some lupines; To detect castor oil in almond oil; Testing bitter almond oil; Iodized apatites; Glycerine in combination; Detection of lead in citric acid; To bleach sponges; The perfume of flowers; Varnish for foundry patterns and machinery; Test for ammonia; Solvents for rubber; Solvent for gum resins; Substitute for gold bronze ..... 1440
Imitation walnut; A new method of preparing carbonic oxide; Burning of sulphur with white phosphorescent flame; Cryptidin; Carbonic acid hydrate; A new petroleum Engine; acetate of lime; The effect of oil in boilers; Something new in size and glue ..... 1512
Lagam balsam; Cinchona from the Cape de Verde Islands; The ptomaines; Cinchocerotin; A German insecticide; Silicofluoride of amonia as test for boric acid; Colored varnishes for tin; Asbestos; Determination of total tartaric in crude tartar; Cacao beans and chocolate; Oxalic acid; Dehydrated oxalic acid; Utilization of cottonseed oil residues ..... 1584
Orange peel fuel; Filtering distilled water; Treating bricks for use in pavements; New method for the synthesis of the alkyl-nitrous acids; Kerosene as an insecticide; Drilling glass; To render cements unalterable; Vaccine lymph ..... 1656

## Recent Patents.

Packing boxes for bottles; Manufacture of cyanogen compounds and ammonia; Machine for making carbon or gas black; Still for refining petroleum; Bottle stopper; Paint oil; Fertilizing compound; Manufacture of glucose and grape sugar ..... 53
Detergent compound and process of making same; Machine for the manufacture of candles; Apparatus for the manufacture of fertilizers from offal; Method of treating grape sugar; Soap compound; Manufacture of porous zinciferous alum; Manufacture of glucose; Method of preparing oxyquinoline; Method of production of starch, dextrine, glucose, syrup and grape sugar ..... 175
Manufacture of blue dye stuff or coloring matter; Silicated paint; Saccharification of starch; Apparatus for extracting oil from oleaginous seeds &c.; Starch separator; Process of and apparatus for recovering starch and other valuable substances from waste water in the manufacture of starch; Process of testing oils; Press for molding glass; Preparing alkaline bicarbonates; Method of crystallizing grape sugar ..... 234
Glass melting furnace; Bottle stopper; Capsule stripper; Manufacture of sulphuric acid; Bottle stopper; Glass cutting frame; Manufacture of anhydrous sulphide of zinc; Compound for the manufacture of glass; Packing caustic alkali ..... 295
Method of and apparatus for manufacturing starchs, dextrine, glucose, syrup, grape sugar or spirits, beer, vinegar; Glass annealing leer; Method of and apparatus for freezing paraffine; Process of purifying soda ash; Manufacture of aluminous cake; Remedy for dyphteria ..... 352
Process of and apparatus for manufacturing soap; Manufacture of oils from vegetables &c.; Medical compound; Detergent or compound for removing paint; Commercial putty ..... 416
Bottle stopping device; Bottling machine; Self feeding machine for coating pills; Apparatus for vaporizing and burning petroleum; Bottle wrapper; Art of manufacturing starch; Pump for oil tanks; Apparatus for generating vapor from liquid hydrocarbon; Method of applying dyestuffs to fibrous material; Methods of preparing dyestuffs for application to fibrous material; Process of extracting glycerine from fatty matter; Rectifying alcohol and other crude spirits ..... 535
Bottle stopper; Process of refining fat oils; Art of making soap from fats and oils; Hard soap; Healing soap; Toilet soap ..... 596
Apparatus for the manufacture of sulphate ammonia; Candle molding machine ..... 654
Wooden battle wrapper; Vialing essential oils; Device for hacking trees in gathering turpentine; Holder for acid carboys; Process of separating starch; Bottle stopper fastening; Machine for cutting soap and other materials; Tube clamp for oil wells; Preserving vaccine; Process of preparing oxyhydro ethyl chinoline; Process of treating and ameliorating alcohols and alcoholic liquors ..... 655
Machine for coating pills; Bottle stopper and fastener; Manufacture of Ammoniacal salts; Manufacture of hydrogen peroxyde; Insecticide mixture; Medical compund; Manufacture of anthracene blue ..... 695
Bottle stopping machine; Manufacture of pyroxyline ..... 758
Oil mat; Manufacture of illuminating gas from hydrocarbon oils; Apparatus for the manufacture of gas from hydrocarbon oils; Insecticide; Water proof paint; Process of manufacturing caustic alkalies; Manufacture of Portland cement; Production of disinfectants; Paint ..... 841
Oil can; Method of purifying impure anthrochinone and alazarine ..... 894
Process and apparatus for obtaining boracic acid from borates; Glass mould. 907
Apparatus for extracting; Apparatus for treating animal matter for fertilizers; Apparatus for desiccating animal matter for fertilizers; Bottle wrapper; Capsule machine; Oil cake former and spring mat; Starch separator; Medicinal compound; Solvent for paints, oils and varnishes; Apparatus for setting and molding starch; Treatment of caustic soda; Liquified anæsthetic; Remedy for ague; Manufacture of glass articles; Process of deodorizing solutions of calophony in heavy hydrocarbons; Process of distilling petroleum ..... 984
Process of manufacturing linseed oil; Treatment of indophenols ..... 985
Apparatus for boiling acids and chemicals. 1055
Wood distilling apparatus; Mold for forming glass articles; Mold for manufacturing glass lamps and other articles; Soap compound ..... 1056
Apparatus for extracting oil from cod's livers; Pump attachment for oil cans; Artificial cork; Press for stearine ..... 1127
Division-mat for oil presses; Can for oil and other liquids; Regulating sight-feed oil cup; Catarrh remedy; Dyeing compound; Art of extracting glycerine; Press and mould for moulding glass; Process of and apparatus for extracting oil and other substances from seeds and other materials ..... 1128
Manufacture of open ended glassware; Blown glassware manufacture; Machine for grinding elliptical glasses, mirrors, and the like; Production of enamelled or metallized glass; Capsule machine ..... 1129
Apparatus for pumping and flowing oil wells; Manufacture of of bicarbonate of soda; Capsule machine; Preparation and Production of mineral phosphates; Medical compound; Packing box for bottles; Remedy for diphtheria; Capsule machine ..... 1199
Capsule machine; Packing box for bottles; Process of and apparatus for treating cottonseed; Machine for plating soap; Glass mold and the manufacture of glass articles; Manufacture of glucose or grape sugar; Soap; Machine for coating pills with gelatine ..... 1200
Machinery or apparatus for compressing lime and other pulverulent substances into solid or cohesive form; British patents ..... 1201
Art of extracting glycerine from waste soap liquor of soap manufactures; Apparatus for vaporizing and burning petroleum; Manufacture of glue-size; Process of coloring glue; Composition for lubricating axles; Preparation of oxhydro methyl chinoline; Starch; Bottle-stopper and draft-nozzle; Machine for trimming oil-cakes; Bottle stopper; Medicinal compound; Oil press mat; Manufacture of cinnamic acid; Material for the manufacture of metamethyl indigo; Method of and apparatus for the manufacture of oil from resinous wood; Manufacture of bicarbonate of soda ..... 1267
Fertilizer; Hair tonic; Production of coloring matters from diazo amido compounds; Cosmetic wash; Nozzle for oil cans; Manufacture of oil as a substitute for linseed oil; British patents ..... 1355
Machine for the manufacture of carbon black ..... 1415
Process of and apparatus for the recovery of turpentine and other wood products; Apparatus for treating argols in the manufacture of cream of tartar; Oil can; Process of and apparatus for obtaining ammonia; Oil well tubing clamp; Process of and apparatus for the manufacture of turpentine; Apparatus for making varnish; Production of glycerine from the mother liquor of soap factories; Side leak or sand well washer for oil wells ..... 1416
Color; Oil cup; Stoppering of bottles; Apparatus for refrigerating oils, fats, &c.; Apparatus for silvering glass; Oil mill box and fitting; Bottle stopper; Production of sulpho acid compound of beta-naphthol ..... 1417
Medicine spoon and vial holder; Combined lubricating and cooling compound; Apparatus for the manufacture of soda; oil can ..... 1488
Puryfying fatty oils and fats; Lubricating compound; Process of obtaining carbonate of strontium; Druggists' percolator; Fertilizer; Machine for coating pills with gelatine; Manufacture of starch; Waterproof compound of mangrove rosin, or cativo, and caoutchouc; Paint for roofing and other purposes; British patents; Trade marks; Labels ..... 1489
Oil cup; Process of and apparatus for manufacturing lampblack; Confectionery and pill coating and pill rounding machine; Manufacture of ammonia and its salts ..... 1551
Process of obtaining lubricating oil from petroleum; Extracting glycerine; Calcimine compound; Production of paranitrobenzylidene chloride; Process of manufacturing oils from organic substances; Trade marks; British patents ..... 1552
Apparatus for manufacturing bicarbonate of soda; Furnace for the manufacture of glass; Expressing oil from seed and the manufacture of oil cakes therefrom; Process of renewing boneblack; Process of converting starch into glucose; Mat for hydraulic oil presses; Manufacture of bichromate of soda; Obtaining phosphatic fertilizers from basic iron slag; Bottle stopper; Trade marks; Labels; British patents ..... 1622
Bottle stoppers (3); Trade marks; Labels ..... 1708

## Obituaries.

Samual G. Cornell ..... 321
Gilbert Potter ..... 668
Russell W. Robinson ..... 791
Jeremiah Curtis ..... 791
George T. Chambers ..... 791
Peter Cooper ..... 865
Gustave Schiff ..... 1151
Francis Burke ..... 1151
Samuel P. Smith ..... 1151
William R. Renwick ..... 1223
James Young, F. R. S. ..... 1223
Abraham Mansell ..... 1296
Edward Tatum ..... 1296
Norman White ..... 1583
Philip Schieffelin ..... 1583
John E. M. Harron ..... 1583